

Divisional Application of No. 09/870,575
PRELIMINARY AMENDMENT
Docket No. NBI-866A

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel Claims 1-20, 23, and 34, without prejudice or disclaimer; amend Claims 21-22, 26-30, 33, 36-37, and 40; and add new Claims 41-49.

Listing of Claims:

1-20 (Currently Canceled)

21. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack comprising:

feeding ~~each~~ of a plurality of stacks of articles having varying thicknesses supplied from an article infeed to one of a plurality of stripping devices,

removing a set number of articles in the form of a stack by each stripping device, wherein a proportional shifter is coupled to each stripping device setting a plurality of proportional shifters each coupled to one said stripping device to remove a set number of articles from each feed stack in said infeed, and

measuring the stack height of said set number of articles with an article gauge attached to each proportional shifter to determine any change in stack height, and

adjusting each proportional shifter for a change in the stack height in proportion to the set number of articles removed without interrupting the flow of articles.

22. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 21 comprising switching each said proportional shifter between two different pre-determined numbers of fragile articles to be removed from said feed stack by each stripping device.

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23. (Currently Canceled)

24. (Original) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 21 wherein the number of articles in a stack is set from about 2 to about 6 articles.

25. (Original) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 22 wherein the two different predetermined numbers of articles in a stack is from about 2 to about 6 articles.

26. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim ~~23~~ 22 wherein said switching is performed in-process ~~between two pre-determined numbers of articles to be stripped from said feed stack~~ while maintaining the adjustment in stack height.

27. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a ~~stack~~ according to Claim ~~26~~ which comprises 21 adjusting wherein each proportional shifter is adjusted for a change in the stack height the gauged thickness of a set number of stacked articles every 15 to 25 minutes.

28. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim ~~23~~ 22 wherein said switching ~~step~~ prevents depletion of a supply feed stack relative to at least one other supply feed stack.

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29. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 28 wherein said switching step prevents depletion of a plurality of supply feed stacks relative to one another.

30. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 29 21 wherein articles ~~taken from said plurality of supply feed stacks and~~ removed from a plurality of said stripping devices are stacked to form a slug.

31. (Original) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 30 wherein said slug comprises from about 6 to about 18 articles.

32. (Original) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 30 further comprising diverting an article infeed to a spare wrapper to accommodate product when a wrapper stops or breaks down.

33. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack comprising:

feeding each of a plurality of stacks of articles from an article infeed to one of a plurality of stripping devices; and

measuring the stack height of a set number of ~~fragile~~ articles with an article gauge attached to each of said plurality of stripping devices to set the number of articles for removal from a feed stack; and

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adjusting a proportional shifter attached to each article gauge for a change in the stack height of the set number of articles in proportion to the number of articles removed without interrupting the flow of articles.

34. (Currently canceled)

35. (Original) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 33 wherein the set number of articles in a stack is from about 2 to about 6 articles.

36. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 33 wherein an in-process adjustment is made for the stack height of a set number of articles in each of said article gauges.

37. (Currently Amended) A method for continuously packaging or sorting fragile articles having varying thicknesses in a stack according to Claim 36 33 comprising adjusting wherein each proportional shifter is adjusted for a change in the stack height of the set number of articles ~~the gauged thickness of a set number stacked articles in each of said plurality of article gauges every 15 to 25 minutes.~~

38. (Original) A method for preventing waste in continuously packaging or sorting fragile articles having varying thicknesses in a stack comprising:

feeding each of a plurality of stacks of articles supplied from an article infeed to one of a plurality of stripping devices,

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setting a plurality of proportional shifters each coupled to one said stripping device to remove a set number of articles from each feed stack in said infeed, and
measuring the stack height of said set number of articles with an article gauge attached to each proportional shifter.

39. (Original) A method for preventing waste in continuously packaging or sorting fragile articles having varying thicknesses in a stack comprising:

feeding each of a plurality of stacks of articles from an article infeed to one of a plurality of stripping devices and

measuring the stack height of a set number of fragile articles with an article gauge attached to each of said plurality of stripping devices to set the number of articles for removal from a feed stack.

40. (Currently Amended) A method as claimed in claim 39 21 wherein said fragile articles are crackers.

41. (NEW) A method as claimed in claim 21, wherein each proportional shifter comprises a rod with two blocks moveable along said rod.

42. (NEW) A method as claimed in claim 41, wherein the rod comprises a threaded rod with two threads, each thread having a different pitch.

43. (NEW) A method as claimed in claim 42, wherein the two blocks are threaded blocks, each block having a pitch that matches one of the pitches on the threaded rod.

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44. (NEW) A method as claimed in claim 43, wherein the pitches of the two threaded blocks differ by a factor equal to a ratio of two different pre-determined numbers of articles to be removed from said stack.

45. (NEW) A method as claimed in claim 41, further comprising moving one of the blocks along the rod, thereby adjusting an article rest for the change in the stack height of said set number of articles.

46. (NEW) A method as claimed in claim 41, wherein each article gauge comprises two plates, and wherein one plate is attached to one of the two blocks.

47. (NEW) A method as claimed in claim 21, wherein each stripping device comprises a rotary material stripper feeder adapted to continuously sweep the set pre-determined number of articles into a wrapper.

48. (NEW) A method as claimed in claim 21, wherein the proportional shifter comprises a variable stroke piston contained in an air cylinder.

49. (NEW) A method as claimed in claim 48, wherein a distance moved by the variable stroke piston is limited by pre-determined stroke stops.